

ATTY. DOCKET NO. IBM/02B Confirmation No. 9272

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicant** 

: Joseph Phillip Bigus et al.

3621

Serial No.

: 09/431,833

Art Unit:

Examiner: Firmin Backer

Filed

3.

: November 2, 1999

For

: INTELLIGENT AGENT WITH NEGOTIATION CAPABILITY AND

METHOD OF NEGOTIATION THEREWITH

Cincinnati, Ohio 45202

April 9, 2004

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Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

GROUP 3600

## TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION-37CFR 191)

- Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the 1. Notice of Appeal received by the Office on February 13, 2004.
- 2. STATUS OF APPLICANT

| This app            | lication is on behalf of                                  |          |  |  |  |
|---------------------|---|----------|--|--|--|
| <u>XX</u>           | other than a small entity                                 |          |  |  |  |
|                     | small entity  |          |  |  |  |
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|                     | attached  |          |  |  |  |
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|              | one month                  | \$ 110.00                          | \$ 55.00  |                   |  |
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WOOD, HERRON & EVANS, L.L.P.

Scott A. Stinebruner Reg. No. 38,323

2700 Carew Tower 441 Vine Street Cincinnati, Ohio 45202 (513) 241-2324

## **CERTIFICATE OF MAILING 37 CFR 1.8**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 9, 2004.

Scott A. Stijebruner Reg. No. 38,323

Page 2 of 2 Serial No. 09/431,833 Appeal Brief Transmittal IBM Docket No.: RO996054L WH&E Docket: IBM/02B Transmittal Request for Appeal Brief K:\u00e4bm029Appeal Brief Transmittal.wpd Attorney Docket No. IBM/02B Confirmation No. 9272



### UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES Ex parte Joseph Phillip Bigus, Brian John Cragun, and Helen Roxlo Delp Appeal No. Application No. 09/431,833 APPEAL BRIEF

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Attorney Docket No. IBM/02B Confirmation No. 9272

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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NEGOTIATION THEREWITH

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### APPEAL BRIEF

### I. REAL PARTY IN INTEREST

This application is assigned to International Business Machines Corporation, of Armonk, New York.

### II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

### III. STATUS OF CLAIMS

Claims 54-63 and 104-112 are pending in the Application. All pending claims stand rejected, and are now on appeal.

### **IV. STATUS OF AMENDMENTS**

No amendments have been filed prior to or subsequent to final rejection (Paper No. 11).

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### V. SUMMARY OF INVENTION

Applicants' invention is generally directed to the identification of unknown parties interacting with an intelligent agent, e.g., for the purpose of modifying the behavior of an intelligent agent depending upon the identity of a party with which the agent is interacting.

As discussed at pages 3 and 4 of the Application, intelligent agents are computer programs that "operate much like software-implemented 'assistants' to automate and simplify certain tasks in a way that hides their complexity from the user." (Application, page 3, lines 6-8). Furthermore, intelligent agents are "characterized by the concept of delegation, where a user, or client, entrusts the agents to handle tasks with at least a certain degree of autonomy," causing them to "operate with varying degrees of constraints depending upon the amount of autonomy that is delegated to them by the user." (Application, page 3, lines 13-18). In addition, as further stated in the Application:

Intelligent agents may also have differing capabilities in terms of intelligence, mobility, agency, and user interface. Intelligence is generally the amount of reasoning and decision making that an agent possesses. This intelligence can be as simple as following a predefined set of rules, or as complex as learning and adapting based upon a user's objectives and the agent's available resources.

Mobility is the ability to be passed through a network and execute on different computer systems. That is, some agents may be designed to stay on one computer system and may never be passed to different machines, while other agents may be mobile in the sense that they are designed to be passed from computer to computer while performing tasks at different stops along the way. User interface defines how an agent interacts with a user, if at all. (Application, page 3, line 19 to page 4, line 5).

Agents have a number of uses in different computer applications, including, for example, electronic commerce, where an agent may be used to seek out other parties such as other users, computer systems and agents, conduct negotiations on behalf of their client, and enter into commercial transactions. (Application, page 4, lines 6-15). In this regard, one concern that may arise with respect to an intelligent agent relates to the interaction of the agent with unknown

parties. Unlike the situation where an agent is interacting with a party that is known to be reliable, when an agent is interacting with an unknown party, the agent may be subjected to a greater risk of malicious activities, e.g., with respect to tampering, deception, snooping, etc. Particularly when an agent is mobile in nature and/or resident on an unsecured or third party computer system, the owner or principal of an agent may not be able to ensure that the agent interacts only with trusted parties. (Application, page 6, lines 4-14). Indeed, it may be desirable in some instances to alter the behavior of an agent when the agent is interacting with unknown parties to better protect the agent against potential malicious activities.

Therefore, to assist in the identification of unknown parties interacting with an intelligent agent, embodiments consistent with the invention maintain records of known parties, with the records including one or more attributes that are used to characterize those known parties. (Application, page 8, lines 3-8). By doing so, when an agent interacts with an unknown party, the agent is able to compare one or more attributes related to the unknown party with those of known parties. Based upon such a comparison, the agent may be able to identify the unknown party as that known party for which the attributes have been found to most closely match. (Application, page 8, lines 8-16).

A number of different types of attributes may be compared to identify an unknown party. For example, with regard to an unknown party that is implemented as an agent used in an electronic commerce environment, information such as name or identification, client name, bank and/or bank account number, credit card number, homebase location (e.g., IP address or domain), program size, message origination location, or pattern of pattern of input/output (I/O) compared to CPU cycles for I/O transmissions, may be used. (Application, page 40, lines 4-13). As another alternative, an unknown agent may be scanned and compared to other known agents, e.g., by comparing the percentage of identical code, determining the language the agent was written in, or searching for unique patterns in much the same manner as a virus checking program. (Application, page 40, lines 13-18).

Moreover, while other algorithms may be used to perform the comparison of attributes, the Application describes one particular algorithm that relies on weighting factors associated

with each attribute. (Application, page 40, lines 19-21). The comparison of the attributes of an unknown party with a known party involves the calculation of an accumulated weighting factor by summing the weighting factors of the attributes of the known party which match those of the unknown party. (Application, page 40, lines 24-29). As such, the identification of the unknown party may be based upon identifying the known party that has the largest accumulated weighting factor. (Application, page 41, lines 8-11).

### VI. <u>ISSUE</u>

Whether claims 54-63 and 104-112 were improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,550,145 to Hoffman et al. (hereinafter *Hoffman*) in view of U.S. Patent No. 5,905,495 to Tanaka et al. (hereinafter *Tanaka*).

### VII. GROUPING OF CLAIMS

For the purposes of appeal, the following groupings of claims are considered to be separately patentable, with the individual claims within each claim grouping standing or falling together:

Group I: claims 54-56, 60-63, and 108-109

Group II: claim 104

<u>Group III</u>: claims 57, 105 and 110 <u>Group IV</u>: claims 58, 106 and 111

Group V: claims 59, 107 and 112

### VIII. ARGUMENT

Applicants respectfully submit that the Examiner's obviousness rejections of claims 54-63 and 104-112 are not supported on the record, and should be reversed. A *prima facie* showing of obviousness requires that the Examiner establish that the differences between a claimed invention and the prior art "are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. §103(a). Such a showing requires that <u>all</u> claimed features be disclosed or suggested by the prior art. Such a showing also requires <u>objective evidence</u> of the suggestion, teaching or motivation to combine or modify prior art references, as "[c]ombining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." <u>In re</u> <u>Dembiczak</u>, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Applicants respectfully submit that, in the instant case, the Examiner has failed to establish a *prima facie* case of obviousness as to any of the pending claims, and as such, the rejections should be reversed.

A specific discussion of the non-obviousness of each of the identified groups of claims is presented in greater detail below.

# A. The Group I claims (claims 54-56, 60-63 and 108-109) were improperly rejected as being unpatentable over *Hoffman* in view of *Tanaka*

Claim 54, which is representative of the Group I claims, recites a method of identifying an unknown party interacting with an intelligent agent. The method includes determining at least one attribute related to the unknown party, comparing the attribute for the unknown party with attributes related to a plurality of known parties, and identifying the unknown party as the known party having the attribute which most closely matches that of the unknown party.

In rejecting claim 54, the Examiner relies on the combination of *Hoffman* and *Tanaka*. *Hoffman* specifically discloses a biometric authorization system that compares a biometrics sample of a user with that stored in a previously-stored authenticated biometrics sample, typically in connection with the provision of an identification code. The Examiner apparently argues that this feature of *Hoffman* discloses the determination of an attribute of an unknown party, comparing that attribute to those of known parties, and identifying the unknown party as the known party having the closest match to that of the unknown party, citing the abstract, Figs. 1 and 2, col. 7, lines 50-59, col. 8, lines 11-51, col. 9, lines 11-44, col. 12, line 23 to col. 13, line

34, col. 71, lines 5-20 and claim 1 (which, incidentally, is the same passage used to reject the remainder of the pending claims).

Despite this teaching in *Hoffman*, however, the Examiner has admitted that *Hoffman* fails "to teach an inventive concept of identifying an unknown party interacting with an intelligent agent." (November 13, 2003 Office Action, ¶3). Indeed, *Hoffman* is entirely silent with respect to the concept of intelligent agents altogether.

To address this deficiency, the Examiner relies on *Tanaka* for allegedly teaching this concept, citing the abstract of *Tanaka* as well as col. 3, line 8 to col. 4, line 44. However, like *Hoffman*, *Tanaka*, and in particular the passage therein cited by the Examiner, is completely silent with respect to intelligent agents. As such, the reference adds absolutely nothing to the rejection, and the rejection should be reversed.

Tanaka discloses, at the most, an Internet communication system that enables a first party to initiate a direct communication session with a second party, even when the first party does not have the IP address of the second party (e.g., because the second party is assigned a dynamic IP address that changes every time the second party connects to the Internet). The disclosed process effectively operates by having the first party send an email to the second party, with the IP address of the first party included in the email. Once received, the second party is able to click on an icon to initiate the direct communications session with the first party using the IP address of the first party. Both parties in these instances are presumed to be humans, and Applicants have found no disclosure in the reference suggesting otherwise.

Applicants can find no disclosure or suggestion anywhere in *Tanaka* relating to intelligent agents. Moreover, it is important to note that *Tanaka* does not even disclose or suggest any functionality for identifying an unknown party. Instead, all parties in the *Tanaka* communication system are known (by virtue of the fact that the email address of each party must be known to enable those parties to be contacted via email). The only information that could be argued to be "unknown" is the dynamic IP address of each party; however, the fact that the IP address of a party is unknown does not make the party itself unknown.

In responding to Applicants arguments, the Examiner does argue, in ¶10 of the November 13, 2003 Office Action, that the term "intelligent agent" has been construed to cover any software-implemented "assistant", and as such, the interaction at issue is considered by the Examiner to be between an unknown party and any software.

In doing so, however, the Examiner has ignored the definition of an "intelligent agent" as set forth in the Application, which should be used to interpret the meaning of the term. As noted above in the Summary of the Invention section of this Appeal Brief, intelligent agents are defined in the Application as programs that operate like software-implemented assistants, but which also are "characterized by the concept of delegation, where a user, or client, entrusts the agents to handle tasks with at least a certain degree of autonomy," causing them to "operate with varying degrees of constraints depending upon the amount of autonomy that is delegated to them by the user." (Application, page 3, lines 13-18). This definition is entirely consistent with the accepted usage of the term in the art. As such, an intelligent agent as set forth in claim 54 requires at least some delegated autonomy to handle tasks on behalf of a client or user.

It is unclear from the Examiner's remarks as to what the Examiner considers to correspond to an "intelligent agent" in the cited references. The Examiner discusses Hoffman's authorization scheme that is used to authenticate supposedly unknown users by comparing biometric samples, yet the Examiner has admitted, in ¶3 of the Office Action, that Hoffman does not teach the concept of an intelligent agent. Moreover, based upon the description in the Application, which has been reproduced above, Applicants can find nothing in Hoffman that is analogous to an agent program that has been delegated some autonomy to act on behalf of a particular user or client.

The Examiner also discusses *Tanaka* as having a communication system with communication terminals to enable users to communicate with one another. However, in this instance, the communication is between two users, rather than an intelligent agent and another party such as another user or another intelligent agent. The software used to facilitate such communications relates to a computing infrastructure, and it does not appear that any of the

software incorporates any degree of delegated autonomy, which is a necessary component of an intelligent agent as presently claimed.<sup>1</sup>

As such, Applicants respectfully submit that the Examiner's contention that the prior art teaches the identification of an unknown party interacting with an intelligent agent, where the intelligent agent is a program that has been delegated some autonomy to act on behalf of a user or client, is incorrect.

To sustain the obviousness rejection of claim 54, the Examiner is required to provide objective evidence of a recognized motivation in the art to modify *Hoffman* to identify an unknown party interacting with an intelligent agent. The Examiner has failed to meet this burden. Indeed, neither reference has anything to do with intelligent agents, and *Tanaka* does not even address the identification of unknown parties.

Moreover, Applicants respectfully submit that the claimed invention addresses a unique problem that is neither addressed nor appreciated by the references cited by the Examiner. Given the fact that intelligent agents are expected to operate with some degree of delegated autonomy, such agents very well may be subjected to an increased risk from malicious parties, particularly when such agents are resident in uncontrolled or untrusted environments. Thus, by attempting to identify unknown parties with which intelligent agents are interacting, embodiments consistent with the invention potentially enable intelligent agents to modify their behavior so as to minimize the risk posed by a party with which they are interacting. In contrast, both *Hoffman* and *Tanaka* primarily address environments where the software apparently analogized by the Examiner to an

<sup>&</sup>lt;sup>1</sup>Applicants also wish to note that the Examiner incorrectly argues that *Tanaka* discloses the concept of an unknown party, based upon the assumption that if a caller does not have an address for another party it would be impossible for that caller to communicate with the other party. This logic is flawed in that the Examiner is asking "where" a party is, rather than "who" the party is, which is an entirely different and irrelevant question. As noted above, *Tanaka* requires one user to send an email to another user to obtain an address that enables the two users to communicate directly. Given that the email address must be known beforehand, it is evident that the identify of the user recipient of the email is in fact already known, so it cannot be said that the other user is "unknown". What is unknown in *Tanaka* is the address (i.e., the "where") of a known user. Thus, Applicants submit that *Tanaka* does not disclose the concept of an unknown party, as is alleged by the Examiner.

intelligent agent is not delegated any autonomy, nor presented with any such analogous risk. Indeed, *Tanaka*, which the Examiner specifically relies upon for teaching the identification of an unknown party interacting with an intelligent agent, addresses only the transfer of an address associated with a known party in a controlled environment.

As such, Applicants respectfully submit that the Examiner has failed to raise a prima facie case of obviousness with respect to claim 54. Moreover, with regard to independent claims 60 and 61, each of these claims likewise recites the identification of an unknown party interacting with an intelligent agent through the comparison of attributes determined for an unknown party with attributes related to a plurality of known parties. Claims 60 and 61 are therefore non-obvious over Hoffman and Tanaka for the same reasons as presented above for claim 54. Reversal of the rejections of claims 54, 60 and 61, as well as allowance of these claims and of the other Group I claims which depend therefrom, are therefore respectfully requested.

# B. The Group II claim (claim 104) was improperly rejected as being unpatentable over Hoffman in view of Tanaka

Claim 104 depends from claim 60, and additionally recites that each of a plurality of attributes has a weighting factor associated therewith. As such, claim 104 permits different attributes to be assigned different degrees of relevancy for use in the determination of the identify of an unknown party.

Prior to addressing the specific rejection of claim 104, Applicants feel it necessary to address an overriding defect in the Examiner's rejections of all of the dependent claims currently on appeal. In particular, in rejecting these claims, the Examiner has done nothing more than cite the same passages in *Hoffman* that were used to support the rejections of the independent claims, namely the abstract, Figs. 1 and 2, col. 7, lines 50-59, col. 8, lines 11-51, col. 9, lines 11-44, col. 12, line 23 to col. 13, line 34, col. 71, lines 5-20 and claim 1. *Tanaka* is not even mentioned, and moreover, the reasons presented in support of each rejection are entirely conclusory in nature. In fact, the text of each rejection is simply a verbatim reproduction of the specific claim language at issue. Moreover, despite the fact that Applicants have addressed a number of these claims

separately in their prior responses, the Examiner has never attempted to rebut Applicants' prior arguments made with respect to any of these rejections.

Due to the cursory nature in which each dependent claim has been addressed to date, it has been difficult to ascertain the Examiner's reasoning for the rejections. Moreover, the lack of careful analysis of the claims renders the rejections deficient on their face. Reversal of the Examiner's rejections of all dependent claims are therefore respectfully requested on this basis.

Specifically turning now to claim 104, Applicants can find no discussion in either reference purporting to disclose the concept of applying weighting factors to a plurality of attributes, much less applying weighting factors to attributes in the context of identifying unknown parties. Moreover, the Examiner has not asserted, nor have Applicants found, any motivation in either reference to modify *Hoffman* to incorporate such functionality. As such, Applicants respectfully submit that the Examiner has failed to raise a *prima facie* case of obviousness with respect to claim 104. Reversal of the rejection, and allowance of claim 104, are therefore respectfully requested.

# C. The Group III claims (claims 57, 105 and 110) were improperly rejected as being unpatentable over *Hoffman* in view of *Tanaka*

Claim 57, which is representative of the Group III claims, depends from claim 55 and further recites, similar to claim 104, that each of a plurality of attributes has a weighting factor associated therewith. Claim 57 also recites that the comparing step calculates an accumulated weighting factor for each known party by summing the weighting factors of the attributes of the known party which match those of the unknown party, and that the identifying step identifies the unknown party as the known party with the largest accumulated weighting factor.

As with claim 104, the Examiner has not specifically addressed what particular disclosure in *Hoffman* renders claim 57 obvious, or the reasons why claim 57 is not distinguishable from the prior art of record. In addition, Applicants can find no discussion in either reference purporting to disclose the concept of applying weighting factors to a plurality of attributes, or of summing

weighting factors of matching attributes to calculate an accumulated weighting factor that is used to identify an unknown party.

Accordingly, Applicants respectfully submit that the Examiner has failed to raise a *prima* facie case of obviousness with respect to claim 57. Likewise, the rejections of claims 105 and 110, which recite similar subject matter, are similarly deficient. Reversal of the rejections, and allowance of claims 57, 105 and 110, are therefore respectfully requested.

# D. The Group IV claims (claims 58, 106 and 111) were improperly rejected as being unpatentable over Hoffman in view of Tanaka

Claim 58, which is representative of the Group IV claims, depends from claim 55 and further recites that the unknown party is an intelligent agent configured to conduct electronic transactions, and that the plurality of attributes are selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof. Of note, therefore, claim 58 is directed to identifying an unknown intelligent agent that is interacting with another intelligent agent.

As with the other dependent claims, the Examiner has not specifically addressed what particular disclosure in *Hoffman* renders claim 58 obvious, or the reasons why claim 58 is not distinguishable from the prior art of record. In addition, Applicants can find no disclosure in *Hoffman* that teaches any functionality that would even arguably be capable of ascertaining the identity of a computer program such as an intelligent agent.

Instead, Hoffman is directed to identifying a <u>human</u> unknown party through the use of biometrics, which is defined by Webster as "the statistical study of biological phenomena." Examples of biometric techniques in Hoffman include "finger prints, hand prints, voice prints, retinal images, handwriting samples and the like" (Col. 4, lines 22-24). Biometric analysis is therefore <u>irrelevant</u> for ascertaining the identify of an intelligent agent or any other computer program. As such, Applicants respectfully submit that the biometric techniques described in

Hoffman fall far short of disclosing or suggesting the identification of an intelligent agent configured to conduct electronic transactions.

. 1

Likewise, *Tanaka* does not even address the identification of any unknown party (as noted above), much less the identity of a computer program or intelligent agent. It also does not appear that the Examiner even attempts to rely on the reference to disclose or suggest such a concept.

Applicants therefore respectfully submit that the Examiner has failed to raise a *prima* facie case of obviousness with respect to claim 58. Likewise, the rejections of claims 106 and 111, which recite similar subject matter, are similarly deficient. Reversal of the rejections, and allowance of claims 58, 106 and 111, are therefore respectfully requested.

# E. The Group V claims (claims 59, 107 and 112) were improperly rejected as being unpatentable over *Hoffman* in view of *Tanaka*

Claim 59, which is representative of the Group V claims, depends from claim 55 and further recites that the unknown party is an intelligent agent, and that the determining step includes the step of scanning program code for the unknown party to determine attributes thereof.

As with the other dependent claims, the Examiner has not specifically addressed what particular disclosure in *Hoffman* renders claim 59 obvious, or the reasons why claim 59 is not distinguishable from the prior art of record. In addition, Applicants can find no disclosure in *Hoffman* that teaches any functionality that would even arguably be capable of scanning program code for an unknown intelligent agent to determine attributes thereof. The Examiner did not assert that *Tanaka* is at all relevant to this concept, nonetheless, Applicants were unable to find any disclosure in *Tanaka* that appears to be relevant in this regard.

As discussed above in connection with the Group IV claims, the references cited by the Examiner fail to disclose or suggest the identification of an unknown intelligent agent interacting with another intelligent agent. Moreover, *Hoffman's* disclosure of a biometric technique for identifying an unknown person does not even arguably suggest the scanning of program code to ascertain the identity of an intelligent agent or other computer program.

Applicants therefore respectfully submit that the Examiner has failed to raise a *prima* facie case of obviousness with respect to claim 59. Likewise, the rejections of claims 107 and 112, which recite similar subject matter, are similarly deficient. Reversal of the rejections, and allowance of claims 59, 107 and 112, are therefore respectfully requested.

### IX. CONCLUSION

In conclusion, Applicants respectfully request that the Board reverse the Examiner's rejections of claims 54-63 and 104-112, and that the Application be passed to issue. If there are any questions regarding the foregoing, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

Date: `

9 APRIL 2004

2700 Carew Tower 441 Vine Street Cincinnati, Ohio 45202 (513) 241-2324 Bv

Scott A. Stinebruner Reg. No. 38,323

### APPENDIX A: CLAIMS ON APPEAL (S/N 09/431,833)

- 54. (Original) A method of identifying an unknown party interacting with an intelligent agent, the method comprising the steps of:
  - (a) determining at least one attribute related to the unknown party;
  - (b) comparing the attribute for the unknown party with attributes related to a plurality of known parties; and
  - (c) identifying the unknown party as the known party having the attribute which most closely matches that of the unknown party.
- 55. (Original) The method of claim 54, wherein the determining step determines a plurality of attributes related to the unknown party, and wherein the comparing step compares the plurality of attributes for the unknown party with those of the plurality of known parties.
- 56. (Original) The method of claim 55, wherein the comparing step includes the step of accessing a database including a plurality of records, each record associated with a known party and including the plurality of attributes related thereto.
- 57. (Original) The method of claim 55, wherein each of the plurality of attributes has a weighting factor associated therewith, wherein the comparing step calculates an accumulated weighting factor for each known party by summing the weighting factors of the attributes of the known party which match those of the unknown party, and wherein the identifying step identifies the unknown party as the known party with the largest accumulated weighting factor.
- 58. (Original) The method of claim 55, wherein the unknown party is an intelligent agent configured to conduct electronic transactions, and wherein the plurality of attributes is selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof.

- 59. (Original) The method of claim 55, wherein the unknown party is an intelligent agent, and wherein the determining step includes the step of scanning program code for the unknown party to determine attributes thereof.
- 60. (Original) An apparatus for identifying an unknown party interacting with an intelligent agent, comprising:
  - (a) a database including a plurality of records, each record associated with a known party and including the plurality of attributes related thereto; and
  - (b) an identification module, coupled to the database, the identification module configured to compare a plurality of attributes for the unknown party with those of each known party and to identify the unknown party as the known party having the attributes which most closely match those of the unknown party.
  - 61. (Original) A program product comprising:
  - (a) a program configured to perform a method of identifying an unknown party interacting with an intelligent agent, the method comprising the steps of:
    - (1) determining at least one attribute related to the unknown party;
    - (2) comparing the attribute for the unknown party with attributes related to a plurality of known parties; and
    - (3) identifying the unknown party as the known party having the attribute which most closely matches that of the unknown party; and
    - (b) a signal bearing media bearing the program.
- 62. (Original) The program product of claim 61, wherein the signal bearing media is transmission type media.
- 63. (Original) The program product of claim 61, wherein the signal bearing media is recordable media.

Appendix A: Claims on Appeal 09/431,833

104. (Once Amended) The apparatus of claim 60, wherein each of the plurality of attributes has a weighting factor associated therewith.

- 105. (Added) The apparatus of claim 104, wherein the identification module is configured to calculate an accumulated weighting factor for each known party by summing the weighting factors of the attributes of the known party which match those of the unknown party, and to identify the unknown party as the known party with the largest accumulated weighting factor.
- 106. (Once Amended) The apparatus of claim 60, wherein the unknown party is an intelligent agent configured to conduct electronic transactions, and wherein the plurality of attributes are selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof.
- 107. (Once Amended) The apparatus of claim 60, wherein the unknown party is an intelligent agent, and wherein the identification module is configured to scan program code for the unknown party to determine attributes thereof.
- 108. (Added) The program product of claim 61, wherein the program is configured to determine a plurality of attributes related to the unknown party, and to compare the plurality of attributes for the unknown party with those of the plurality of known parties.
- 109. (Added) The program product of claim 108, wherein the program is configured to access a database including a plurality of records, each record associated with a known party and including the plurality of attributes related thereto.
- 110. (Added) The program product of claim 108, wherein each of the plurality of attributes has a weighting factor associated therewith, wherein the program is configured to calculate an accumulated weighting factor for each known party by summing the weighting

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factors of the attributes of the known party which match those of the unknown party, and to identify the unknown party as the known party with the largest accumulated weighting factor.

- 111. (Added) The program product of claim 108, wherein the unknown party is an intelligent agent configured to conduct electronic transactions, and wherein the plurality of attributes are selected from the group consisting of an agent name, a client name, a bank name, a bank account number, a credit card number, a homebase location, an agent program name, a location or name of a source with which the unknown party communicates, and combinations thereof.
- 112. (Added) The program product of claim 108, wherein the unknown party is an intelligent agent, and wherein the program is configured to scan program code for the unknown party to determine attributes thereof.